

Claims

1. A method of handing over a subscriber unit from a first cellular communication system supporting a plurality of connections of the subscriber unit to a second cellular communication system (having capability for supporting only one connection); the method comprising the steps of:
 - entering at least a first connection of said plurality of connections into a holding state;
 - forming a handover connection to the subscriber unit through the second cellular communication system;
 - handing over a second connection of said plurality of connections to the second cellular communication system by associating the second connection with said handover connection;
 - entering said at least first connection into an active state by associating the at least first connection with the handover connection.
2. A method as claimed in claim 1 wherein the step of entering said at least first connection into an active state comprises switching the handover connection from being with the second connection to being with the at least first connection.
3. A method as claimed in any previous claim further comprising the step of selecting the second connection from the plurality of connections in response to at least one characteristic of at least one of the plurality of connections.
4. A method as claimed in claim 3 wherein the characteristic is related to a type of connection.

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5. A method as claimed in claim 4 wherein the step of selecting comprises selecting a data service connection in preference to a voice service connection as the second connection.
- 5 6. A method as claimed in any of the previous claims 3 wherein the at least one characteristic comprises at least one characteristic chosen from the group consisting of:
- a) a priority;
 - b) a data rate;
 - 10 c) a propagation characteristic;
 - d) an error rate;
 - e) a transaction identifier; and
 - f) a time of setup of at least one of the plurality of connections.
- 15 7. A method as claimed in any previous claim wherein the at least first connection is a data connection and the method comprises the steps of
- storing data of the at least first connection in memory when the at least first connection is in the holding state; and
 - communicating the data stored in said memory when the at least
- 20 first connection enters the active state.
8. A method as claimed in any previous claim wherein the at least first connection is a data connection and the method comprises the steps of
- storing data of the at least first connection in memory when the at
- 25 least first connection is in the holding state; and
- the subscriber unit retrieving the stored data from the memory by setting up a separate data call.
9. A method as claimed in any of the previous claims further
- 30 comprising the step of notifying a user of the subscriber unit of which of the plurality of connections are in a holding state.

10. A method as claimed in any of the previous claims wherein at least one of the plurality of connections is between the subscriber unit and a second cellular communication unit and further comprising the step of notifying a user of the second cellular communication unit of which of the plurality of connections are in a holding state.

11. A method as claimed in claim 9 or 10 wherein the notification is by means of a voice communication if at least one of the plurality of connections is a voice service connection.

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12. A method as claimed in any of the previous claims further comprising the step of selecting the second connection in response to a parameter set by an operator of at least one of the first or second cellular communication systems.

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13. A method as claimed in any of the previous claims further comprising the step of selecting the second connection in response to a parameter set by a user of the subscriber unit.

20 14. A method as claimed in any of the previous claims wherein if the handover to the second cellular communication system is unsuccessful at least one of the plurality of connections is re-established through the first cellular communication system.

25 15. A method as claimed in any of the previous claims wherein the second cellular communication system comprises a master switch center comprising functionality for selecting the second connection out of the plurality of connections.

30 16. A method as claimed in any of the previous claim wherein the method is operated in a single integrated master switch centre for the first

cellular communication system and the second cellular communication system.

17. A method as claimed in any of the previous claims wherein the
5 second cellular communication system is operable to only support one connection for each served subscriber unit.

18. A method as claimed in any of the previous claims wherein the
10 plurality of connections is circuit switched connections.

19. A method as claimed in any previous claim wherein the second
cellular communication system is a Second Generation Cellular
Communication System.

20. A method as claimed in claim 19 wherein the second cellular
15 communication system is a Global System for Mobile communication (GSM) cellular communication system.

21. A method as claimed in any previous claim wherein the first
20 cellular communication system is a Third Generation Cellular Communication System.

22. A method as claimed in claim 21 wherein the first cellular
communication system is a Universal Mobile Telecommunication System
25 (UMTS).

23. A method as claimed in claim 22 wherein the step of entering the at
least first connection into a holding state is performed in accordance with
at least one of the 3rd Generation Partnership Project (3G PP) Technical
30 Specifications 22.083, 23.083 and 24.083.

24. A method as claimed in claim 22 wherein the step of entering said at least first connection into an active state is performed in accordance with the 3rd Generation Partnership Project (3G PP) Technical Specification 24.083.

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25. A apparatus for handing over a subscriber unit from a first cellular communication system supporting a plurality of connections of the subscriber unit to a second cellular communication system (having capability for supporting only one connection); the apparatus comprising:

10 means for entering at least a first connection of said plurality of connections into a holding state;

means for forming a handover connection to the subscriber unit through the second cellular communication system;

15 means for handing over a second connection of said plurality of connections to the second cellular communication system by associating the second connection with said handover connection;

means for entering said at least first connection into an active state by associating the at least first connection with the handover connection.